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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,976	09/05/2003	Kumiko Kado	031119	5669
23850	7590	11/22/2006		
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006				
			EXAMINER SHOSHO, CALLIE E	
			ART UNIT 1714	PAPER NUMBER

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/654,976

Applicant(s)

KADO ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/19/06 & 8/10/06.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 8/10/06.

Information Disclosure Statement

2. It is noted that "Chinese Office Action Dated June 2, 2000" (reference AF) has been stricken from the IDS filed 8/10/06 given that the reference fails to comply with 37 CFR 1.98(a)(3). Specifically, applicants have not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of the reference which is not in the English language.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura et al. (U.S. 6,713,160) in view of either Igarashi et al. (U.S. 5,882,755) or Sato et al. (U.S. 5,281,340).

The rejection is adequately set forth in paragraph 3 of the office action mailed 2/10/06 and is incorporated here by reference.

It is further noted that Kitamura et al. disclose that the inorganic pigment-cationic resin composite fine particles are pulverization product of agglomerates of a cationic resin and an

inorganic pigment wherein the average composite particle size is controlled to 10-1000 nm during pulverization (col.2, lines 32-43 and col.5, lines 4-21).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura et al. in view of Igarashi et al. as applied to claims 1-7 and 9 above, and further in view of Nakatani et al. (U.S. 2002/0045034).

The rejection is adequately set forth in paragraph 4 of the office action mailed 2/10/06 and is incorporated here by reference.

Response to Arguments

6. Applicants' arguments filed 8/10/06 have been fully considered but they are not persuasive.

Specifically, applicants argue that Kitamura et al. do not teach specific cationic resin as presently claimed.

It is agreed that there is no disclosure in Kitamura et al. of cationic resin as presently claimed which is why Kitamura et al. is used in combination with Igarashi et al. or Sato et al. which each teach cationic resin identical to that presently claimed.

Applicants argue that Igarashi et al. is not a relevant reference against the present claims given that there is no disclosure of inorganic pigment-cationic resin composite fine particles as presently claimed.

It is agreed that there is no disclosure in Igarashi et al. of inorganic pigment-cationic resin composite fine particles, however, note that Igarashi et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of polyvinyl amine type resin identical to presently claimed cationic resin that is used to improve water resistance and suppress deterioration of bond strength of the ink jet recording sheet, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

Igarashi et al. is not used for its teaching of inorganic pigment-cationic resin composite fine particles. This is already taught by Kitamura et al. However, there is no disclosure of presently claimed cationic resin in Kitamura et al. which is why Kitamura et al. is used in combination with Igarashi et al., which is drawn to coating for ink jet recording sheet as is Kitamura et al., and discloses the use of polyvinyl amine type resin identical to presently claimed cationic resin and further disclose the equivalence and interchangeability of using this polyvinyl amine type polymer as the cationic polymer in the coating with using polycondensate of dicyandiamide as the cationic polymer in the coating as disclosed by Kitamura et al.

Thus, given that Igarashi et al. is drawn to same field of endeavor as Kitamura et al., given that Igarashi et al. provide motivation for using presently claimed cationic resin in Kitamura et al. and given that Igarashi et al. disclose the equivalence and interchangeability of

using polyvinyl amine type polymer as presently claimed with using polycondensate of dicyandiamide cationic polymer as disclosed by Kitamura et al., it is the examiner's position that the combination of Kitamura et al. with Igarashi et al. is proper.

Applicants also argue that Sato et al. is not a relevant reference against the present claims given that there is no disclosure in Sato et al. of agglomerates of cationic resin with inorganic pigment particles which are pulverized into average secondary particle size of 10 nm to 1 mm or any disclosure of the advantages of the pulverization product, that is, the inorganic pigment-cationic resin composite fine particles when contained in the ink receiving layer of ink jet recordings sheet.

It is agreed that there is no disclosure in Sato et al. of inorganic pigment-cationic resin composite particles as presently claimed. However, note that Sato et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of cationic resin that has five-membered cyclic amidine structure as a flocculating agent which has good storage stability, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

Further, it is noted that Sato et al. is not used for its teaching of inorganic pigment-cationic resin composite fine particles. This is already taught by Kitamura et al. However, there

is no disclosure of presently claimed cationic resin in Kitamura et al. Sato et al. teach the use of cationic resin that has five-membered cyclic amidine structure. It is significant to note that Sato et al. disclose that the cationic resin is used as a flocculating agent, i.e. able to form agglomerates, which is the same function as the cationic resin in Kitamura et al. Further, Sato et al. disclose that the use of cationic resin is superior to using cationic resin that is ammonium salt of dialkylaminoalkyl (emth)acrylate as disclosed by Kitamura et al.

Thus, given that Sato et al. teach that cationic resin having five-membered cyclic amidine structure as presently claimed functions as flocculating agent and given that Sato et al. teach that the use of such polymer is superior to cationic polymer disclosed by Kitamura et al., it is the examiner's position that the combination of Kitamura et al. with Sato et al. is proper.

Applicants also argue that Nakatani et al. is not a relevant reference against the present claims given that there is no disclosure in Nakatani et al. of inorganic pigment-cationic resin composite particles as presently claimed.

However, note that Nakatani et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of specific fumed silica in coating for ink jet receiving layer in order to produce high density print and clear images, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present

claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
11/18/06